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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/676,773	10/01/2003	John A. Gardner	65961-0119	7917

10291 7590 06/22/2004

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EXAMINER

UHLIR, NIKOLAS J

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 06/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/676,773

Applicant(s)

GARDNER, JOHN A.

Examiner

Nikolas J. Uhlir

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 54-80 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 54-80 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/01/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. The examiner acknowledges that this application is a continuation of U.S. Application #09/447413 (patent #6656596), which is a divisional of U.S. application #09/061915 (patent #6013210), which claims benefit of provisional applications #60/044739 (4/18/1997) and 66/044718 (4/18/1997).

Information Disclosure Statement

2. The examiner has considered the information disclosure statement dated 10/01/2003. A signed and initialed copy accompanies this office action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 54-65 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The reaction between unreacted crosslinking agent in the inner layer with the pendant hydroxyl groups or the ethylinically unsaturated bond present in the polyurethane outer layer to form an interfacial bond between the inner and outer layer, critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). In the process claims of the instant case as well as in the instant specification, applicant always details that unreacted crosslinking agent in the inner layer reacts with the ethylinically unsaturated bond or the pendant hydroxyl groups in

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the outer polyurethane layer to form an interfacial bond between the inner and outer layer. Further, in each of their prior patents, (see, i.e. US5885662 (process) and US6656596 (product)) the instant applicant's have always required the interfacial bond to be formed by the reaction of the inner layer crosslinking agent with functional groups in the outer layer. Thus, the examiner finds the requirement that unreacted crosslinking agent in the inner layer must react with functional groups in the outer layer to be critical to the practice of the instant invention. However, the instant product claims lack this limitation. Correction is required.

Double Patenting

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. Claims 66-80 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 5885662 in view of The Encyclopedia of Polymer Science and

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Technology (Encyclopedia of Polymer Science and Engineering, Volume 3, Nov, 1985, pgs. 552-567).

7. Claim 1 of US5885662 claims: "A process for making a panel structure for mounting in an automobile vehicle to form a part of the interior thereof, the panel structure including a rigid substrate and a layered composite structure, the rigid substrate being hidden from the vehicle interior when the panel structure is mounted in the automobile vehicle, the layered composite structure comprising an outer layer defining at least a portion of an at least partially exposed exterior surface of the panel structure and an inner layer, said process comprising the steps of: applying a water-dispersed composition onto a first mold surface having a complementary shape to an outer surface of the outer layer, the water-dispersed composition comprising at least one light-stable aliphatic thermoplastic polyurethane containing at least one pendent functional group selected from the group consisting of hydroxyl and carboxyl functional groups, at least one coloring agent, and a heat-activated crosslinker; applying sufficient heat to induce partial crosslinking of the light-stable aliphatic thermoplastic polyurethane with the heat-activated crosslinker; substantially drying the water-dispersed composition while on the first mold surface so as to form the outer layer; spraying a rapidly reacting composition containing at least one polyisocyanate and at least one polyol onto an inner surface of the outer layer while on the first mold surface to form the inner layer which comprises a polyurethane elastomer crosslinked with the polyurethane of the outer layer via residual unreacted functional groups of the heat-activated crosslinker and

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thereby forming the layered composite structure having interfacial chemical bonding between the inner surface of the outer layer and an adjacent surface of the inner layer; and uniting the layered composite structure with the rigid substrate so that the rigid substrate serves to reinforce the outer layer while retaining the touch, Color, and configuration of the exposed portion."

8. Further, Claim 3 of US5885662 requires the polyol of claim 1 to contain one or more of pendent hydroxy, carboxyl, or hydroxyl and carboxyl functional groups.

9. Though claims 1 and 3 of US5885662 do not explicitly state that the rapidly reacting composition is a polyurethane, it is well know that the reaction of a polyisocyanate with a polyol results in the formation of a polyurethane. Further, as claim 3 of US5885662 claims that the polyol has pendant hydroxyl groups, the examiner takes the position that the polyurethane formed by reacting the polyisocyanate with this polyol is identical to the thermoplastic polyurethane having pendent hydroxyl groups required by claim 66.

10. However, claim 1 of US5885662 does not teach casting the thermoplastic polyurethane having pendent hydroxyl groups, as required by claim 66.

11. However, The Encyclopedia of Polymer science teaches various well known polymer coating methods. As is clearly shown by table 1 on page 552, cast-coating is equivalent to spraying as a coating process for coating polymer (such as polyurethane) materials onto the same types of substrates.

12. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize cast coating as opposed to spraying as

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the coating method for forming the rapidly reacting composition layer claimed by US5885662, as the prior art recognizes the equivalency of spraying and cast coating as suitable methods for forming polyurethane layers on the similar substrates.

13. The limitations of claims 67-80 are each explicitly claimed by US5885662. Specifically, claim 67 is read on by claim 2 of US5885662, claims 68-80 contain the same limitations as claims 4-17 of US5885662.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolas J. Uhler whose telephone number is 571-272-1517. The examiner can normally be reached on Mon-Fri 7:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J. Thibodeau can be reached on 571-272-1516. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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